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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,887	07/29/2003	Daniel Gelbart	C525 0289 GNM/TAR/bds	3860

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EXAMINER

CHOI, WILLIAM C

ART UNIT	PAPER NUMBER
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2873

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/628,887

Applicant(s)

GELBART, DANIEL

Examiner

William C. Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14 and 18 is/are allowed.
- 6) ☒ Claim(s) 1-3, 11-13 and 15-17 is/are rejected.
- 7) ☒ Claim(s) 4-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>0703</u> .  | 6) <input type="checkbox"/> Other: ____.                                    |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

Receipt of the Information Disclosure Statement (IDS) with copies of the references cited therein, was received on 7/29/2003. An initialized copy of the IDS is enclosed with this office action.

### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "52" in Figure 4 has been used to designate both the silicon substrate and side elements of ribbon elements "50". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "64" of Figure 4, disclosed in the specification on page 12, line 12.

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Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, claims 15-17 are dependant on claim 13. However, each claim discloses, "The **method** of claim 13" when claim 13 discloses and **imaging system**, thereby rendering the claims vague and indefinite. For purposes of examination, it was assumed that claims 15-17 were intended to be dependant on claim 14, where a "method" is disclosed.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Mir (U.S. 4,374,397).

In regard to claim 1, Mir discloses a light valve for use in an imaging system (column 3, lines 17-19, Figure 1) comprising a plurality of individually driven channels having non-uniform size in accordance with a pre-determined regular pattern to be imaged (column 3, line 44, column 4, lines 28-41 and column 5, lines 33-37, Figure 4, "31, 35, A, A<sub>1</sub>").

Regarding claim 2, Mir discloses wherein the light valve has at least one low resolution channel corresponding to a low resolution feature in the regular pattern (column 5, lines 33-37, Figure 4, "35, A").

Regarding claim 3, Mir discloses wherein the low resolution channel comprises a plurality of light valve elements connected to a driver (column 5, lines 52-64, Figure 5, "A-C, SR<sub>1</sub>").

Regarding claim 11, Mir discloses wherein said light valve is used for imaging color filter elements on a color filter substrate (column 6, lines 60-66, Figure 6, "67-69").

Regarding claim 12, Mir discloses wherein the light valve is a PLZT light valve (column 4, lines 31-34).

In regard to claim 13, Mir discloses an imaging system for imaging a regular pattern of features onto a substrate comprising a line illuminator (column 3, lines 45-48, Figure 1, "11"); a light valve having a plurality of individually driven channels having non-uniform size in accordance with a predetermined regular pattern to be imaged (column 3, lines 48-53, Figure 1, "13" and column 4, lines 28-41 and column 5, lines 33-37, Figure 4, "31, 35, A, A<sub>1</sub>"); a driver connected to each channel (Figure 5, "SR<sub>1</sub>, SR<sub>2</sub>"); and a lens for imaging the light valve onto the substrate (column 3, lines 44-45, Figure 1, "14").

***Allowable Subject Matter***

Claims 14 and 18 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to teach a combination of all the claimed features as presented in claim 14: a method for imaging a regular pattern of features with a multi-channel imaging head as claimed, specifically comprising imaging a body portion of a feature and an edge of the feature with a low resolution channel and at least one high resolution channel, respectively.

The prior art fails to teach a combination of all the claimed features as presented in claim 18: a method of fabricating a light valve for imaging a regular pattern of features with a multi-channel imaging system comprising fabricating a plurality of uniform regularly space light valve elements on a substrate as claimed, specifically further comprising connecting groups of elements to form low and high resolution channels.

Claims 4-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to teach a combination of all the claimed features as presented in claims 4-9: a light valve comprising a plurality of individually driven channels having non-uniform size as claimed, specifically wherein the light valve has at least one high resolution channel corresponding to an edge of the low resolution feature.

The prior art fails to teach a combination of all the claimed features as presented in claim 10: a light valve comprising a plurality of individually driven channels having non-uniform size as claimed, specifically further comprising a plurality of low resolution channels spaced apart in accordance with a plurality of low resolution features in the regular pattern.

Claims 15-17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

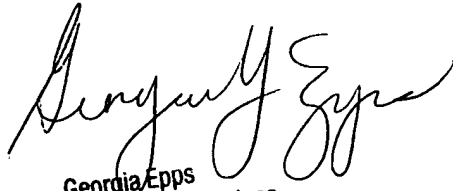
Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Choi whose telephone number is (571) 272-2324. The examiner can normally be reached on Monday-Friday from about 9:00 am to 6 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached on (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

W.C.  
William Choi  
Patent Examiner  
Art Unit 2873  
June 22, 2005

  
Georgia Epps  
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